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09/823,429	03/30/2001	Sanjay K. Agrawal	CISCP539	9399
26541 Cindy S. Kaplan P.O. BOX 2448 SARATOGA, CA 95070	7590	03/17/2008	EXAMINER TANG, KAREN C	
			ART UNIT 2151	PAPER NUMBER
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 09/823,429	<b>Applicant(s)</b> AGRAWAL, SANJAY K.
	<b>Examiner</b> KAREN C. TANG	<b>Art Unit</b> 2151

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE \_\_\_\_ MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
  - If no period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
  - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(o).

#### Status

- 1) Responsive to communication(s) filed on \_\_\_\_.  
 2a) This action is FINAL.      2b) This action is non-final.  
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) \_\_\_\_ is/are pending in the application.  
 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.  
 5) Claim(s) \_\_\_\_ is/are allowed.  
 6) Claim(s) \_\_\_\_ is/are rejected.  
 7) Claim(s) \_\_\_\_ is/are objected to.  
 8) Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.  
 10) The drawing(s) filed on \_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
 a) All    b) Some \* c) None of:  
 1. Certified copies of the priority documents have been received.  
 2. Certified copies of the priority documents have been received in Application No. \_\_\_\_.  
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- 1) Notice of References Cited (PTO-892)  
 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)  
 3) Information Disclosure Statement(s) (PTO/SB/08)  
 Paper No(s)/Mail Date \_\_\_\_
- 4) Interview Summary (PTO-413)  
 Paper No(s)/Mail Date \_\_\_\_.  
 5) Notice of Informal Patent Application  
 6) Other: \_\_\_\_

Art Unit: 2100

1. Claims 1, 4, 8-11, 14, 19, 20, 22, 23, 25, 27, 29, 31, 33-47 are presented for examination.
2. Prosecution is now re-open due the argument response filed on 12/13/07.

## **DETAILED ACTION**

### *Specification*

The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required:

Claims 14, 19, 20 22, 27, 29, 42, and 43 are objected to because according to MPEP 608.01, antecedent basis for the terms appearing in the claims, while an applicant is not limited to the nomenclature used in the application as filed, he or she should make appropriate amendment of the specification whenever this nomenclature is departed from by amendment of the claims so as to have clear support or antecedent basis in the specification for the new terms appearing in the claims. Applicant will be required to make appropriate amendment to the description to provide clear support or antecedent basis for the terms appearing in the claims provided no new matter is introduced. Claims 14, 19, 20 22, 27, 29, 42, and 43 contains terminology such as “computer readable medium” are lacking clear support or antecedent basis in the description of the specification. The following guidelines illustrate the preferred layout for the specification of a utility application. These guidelines are suggested for the applicant’s use.

### **Content of Specification**

- (a) **Title of the Invention:** See 37 CFR 1.72(a) and MPEP § 606. The title of the invention should be placed at the top of the first page of the specification unless the title is provided in an application data sheet. The title of the invention should

be brief but technically accurate and descriptive, preferably from two to seven words may not contain more than 500 characters.

- (b) Cross-References to Related Applications: See 37 CFR 1.78 and MPEP § 201.11.
- (c) Statement Regarding Federally Sponsored Research and Development: See MPEP § 310.
- (d) The Names Of The Parties To A Joint Research Agreement: See 37 CFR 1.71(g).
- (e) Incorporation-By-Reference Of Material Submitted On a Compact Disc: The specification is required to include an incorporation-by-reference of electronic documents that are to become part of the permanent United States Patent and Trademark Office records in the file of a patent application. See 37 CFR 1.52(e) and MPEP § 608.05. Computer program listings (37 CFR 1.96(c)), "Sequence Listings" (37 CFR 1.821(c)), and tables having more than 50 pages of text were permitted as electronic documents on compact discs beginning on September 8, 2000.
- (f) Background of the Invention: See MPEP § 608.01(c). The specification should set forth the Background of the Invention in two parts:
  - (1) Field of the Invention: A statement of the field of art to which the invention pertains. This statement may include a paraphrasing of the applicable U.S. patent classification definitions of the subject matter of the claimed invention. This item may also be titled "Technical Field."
  - (2) Description of the Related Art including information disclosed under 37 CFR 1.97 and 37 CFR 1.98: A description of the related art known to the applicant and including, if applicable, references to specific related art and problems involved in the prior art which are solved by the applicant's invention. This item may also be titled "Background Art."
- (g) Brief Summary of the Invention: See MPEP § 608.01(d). A brief summary or general statement of the invention as set forth in 37 CFR 1.73. The summary is separate and distinct from the abstract and is directed toward the invention rather than the disclosure as a whole. The summary may point out the advantages of the invention or how it solves problems previously existent in the prior art (and preferably indicated in the Background of the Invention). In chemical cases it should point out in general terms the utility of the invention. If possible, the nature and gist of the invention or the inventive concept should be set forth. Objects of the invention should be treated briefly and only to the extent that they contribute to an understanding of the invention.

- (h) Brief Description of the Several Views of the Drawing(s): See MPEP § 608.01(f). A reference to and brief description of the drawing(s) as set forth in 37 CFR 1.74.
- (i) Detailed Description of the Invention: See MPEP § 608.01(g). A description of the preferred embodiment(s) of the invention as required in 37 CFR 1.71. The description should be as short and specific as is necessary to describe the invention adequately and accurately. Where elements or groups of elements, compounds, and processes, which are conventional and generally widely known in the field of the invention described and their exact nature or type is not necessary for an understanding and use of the invention by a person skilled in the art, they should not be described in detail. However, where particularly complicated subject matter is involved or where the elements, compounds, or processes may not be commonly or widely known in the field, the specification should refer to another patent or readily available publication which adequately describes the subject matter.
- (j) Claim or Claims: See 37 CFR 1.75 and MPEP § 608.01(m). The claim or claims must commence on separate sheet or electronic page (37 CFR 1.52(b)(3)). Where a claim sets forth a plurality of elements or steps, each element or step of the claim should be separated by a line indentation. There may be plural indentations to further segregate subcombinations or related steps. See 37 CFR 1.75 and MPEP § 608.01(i)-(p).
- (k) Abstract of the Disclosure: See MPEP § 608.01(f). A brief narrative of the disclosure as a whole in a single paragraph of 150 words or less commencing on a separate sheet following the claims. In an international application which has entered the national stage (37 CFR 1.491(b)), the applicant need not submit an abstract commencing on a separate sheet if an abstract was published with the international application under PCT Article 21. The abstract that appears on the cover page of the pamphlet published by the International Bureau (IB) of the World Intellectual Property Organization (WIPO) is the abstract that will be used by the USPTO. See MPEP § 1893.03(e).
- (l) Sequence Listing, See 37 CFR 1.821-1.825 and MPEP §§ 2421-2431. The requirement for a sequence listing applies to all sequences disclosed in a given application, whether the sequences are claimed or not. See MPEP § 2421.02.

In this case, Applicant did not submit the background of the invention included in the specification. Therefore, correction is therefore, required.

#### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

Art Unit: 2100

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 9, 25, 31, 33, 34, 44, and 45 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Although Applicant has disclosed the limitations in the specification Page 19, Lines 20-23, Pages 20, Lines 1-2, however, Applicant has not disclosed in the specification how the limitation could be used together, further, on Pages 19, Lines 23, Applicant disclosed that by "adding up the delay", the system need not collect the burst rate parameter and the associated rate.

#### *Claim Rejections - 35 USC § 103*

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 4, 8-11, 14, 19, 20, 22, 23, 25, 27, 29, 31, 33-47 are rejected under 35 U.S.C. 103(a) as being unpatentable over Applicant Admitted Prior Art (Specification Pages 2, Lines 4-23, Page 7, Lines 13-20, Pages 8, Lines 6-13, Lines 16-17, Pages 9, Lines 3-5, 10-11, 15-18,

Pages 10, Lines 3-6, Pages 11, Lines 19-20, Pages 12, Lines 1-2, 10-20, Pages 13, Lines 1-3, Lines 9-11, Pages 14, Lines 19-21, Pages 16, Lines 1-2, Pages 17, Lines 1-3, Lines 18-22, Pages 19, Lines 18-20, Pages 20, Lines 9-12) hereinafter AAPA in view of Tang et al hereinafter Tang “Network Traffic Characterization Using Token Bucket Model” Pages 51-62.

3. Referring to Claim 1, 11, 14, 20, 23, 27, and 29, AAPA disclosed collecting traffic data at a queue of a route (multiple queues stores traffic data, refer to Page 8, Lines 9-10, Pages 9, Lines 3-5), said queue associated with the traffic aggregate over a time interval (AAPA admit that Tang algorithm disclosed its algorithm to calculate the real-time traffic profiling is well known in the art, refer to Page 13, Lines 1-3, and in order to do that, it does it by monitoring traffic for a time interval as packet pass through a queue, refer to Page 2, Lines 4-6), the traffic data comprising packet size and arrival time of each packet arriving at the queue during the time interval (it is obvious to have packet that contains time stamp and indications that shows its packet size, refer to Page 7, where maximum burst size indicate the maximum packet size could the traffic be, and negotiation rate indicate the rates that the packets can be sent over the traffic, and rate is packet size divided by the time, therefore, when packet travels, it will requires to contains a time stamp as well as the packet size); Calculating a burst-rate traffic profile responsive to the traffic data collected at said queue over said time interval and the associated rate (Prior art indicates the methods by Tang, where it is incorporate by references in this rejection, that the Token bucket methods provide finding the burst-rate traffic profile  $r$  and  $b$ , refer to Page 12, Lines 10-20), wherein the associated rate is a specified bandwidth for the traffic aggregate (given value  $r$ , refer to Page 12, Lines 15) and calculating the burst-rate traffic profile

comprise calculating a burst parameter based on the associated rate (refer to Page 12, Lines 10-20);

Although AAPA disclosed the invention substantially as claimed, AAPA is silent regarding "and calculating a periodic worst-case delay for the burst-rate traffic profile by dividing the burst parameter by a share of output link bandwidth allotted to said queue, wherein the share of the output link bandwidth is greater than or equal to the associated rate".

Tang, in an analogous art disclosed "calculating a periodic worst-case delay for the burst-rate traffic profile by dividing the burst parameter by a share of output link bandwidth allotted to said queue, wherein the share of the output link bandwidth is greater than or equal (examiner interprets the output link bandwidth is equal to the associated rate.) to the associated rate" (Pages 61, Fig 6, where Tang indicates the max delayed/slope of the graph, is calculated by divided burst rate by associated rate: x-axis/burst rate divided by y axis/associated rate). Hence, providing functions disclosed by Tang, would be desirable for a user to implement in order to alleviates the need for users to explicitly characterize the traffic a priori in order to reserve network resource in an integrated services network.

Therefore, at the time of the invention, it would have been obvious to one of ordinary skill in the art to modify the system of AAPA by including the features presented in Tang.

4. Referring to Claim 4, AAPA disclosed wherein the associated rate is a negotiated rate agreed to by a customer sending the traffic data (refer to pages 7, Lines 15-20).

5. Referring to Claim 8, wherein the traffic aggregate is a class of traffic (SLA contains the certain class of aggregate of traffic, refer to page 7, lines 13-20, and each device is corresponds to a class of traffic, refer to Page 13, Lines 9-11).

6. Referring to Claims 36 and 44, AAPA disclosed wherein a replenishment rate of the token bucket is based on the associated rate (it is an associated rate,  $r$ , refer to Page 11, Lines 19-20 and Page 12, Lines 1-2, and Lines 14-15 and 17-18).

7. Referring to Claims 37, AAPA disclosed wherein the associated rate is a maximum average bandwidth specified in a service level agreement (given value  $r$ , refer to Page 12, Lines 15 and Page 7, Lines 15-20 and Page 12, Lines 1).

8. Referring to Claim 42, AAPA disclosed wherein code that causes the processor to calculate the burst-rate traffic profile comprises code that causes the processor to utilize a token bucket (system must have processor to perform the token bucket operation).

9. Referring to Claims 43, AAPA disclosed wherein the token bucket size corresponds to maximum burst rate (refer to pages 7, Lines 15-20).

Claims 9, 25, 31, 33, 34, 38-41, 46 and 47 are rejected under 35 U.S.C. 103(a) as being unpatentable over Applicant Admitted Prior Art (Specification Pages 2, Lines 4-23, Page 7, Lines 13-20, Pages 8, Lines 6-13, Lines 16-17, Pages 9, Lines 3-5, 10-11, 15-18, Pages 10, Lines

3-6, Pages 11, Lines 19-20, Pages 12, Lines 1-2, 10-20, Pages 13, Lines 1-3, Lines 9-11, Pages 14, Lines 19-21, Pages 16, Lines 1-2, Pages 17, Lines 1-3, Lines 18-22, Pages 19, Lines 18-20, Pages 20, Lines 9-12) hereinafter AAPA in view of Tang et al hereinafter Tang “Network Traffic Characterization Using Token Bucket Model” Pages 51-62 in further view Garcia-Luna-Aceves et al (US 2002/0097726) hereinafter Garcia.

10. Referring to Claims 40 and 46, although AAPA and Tang disclosed the invention substantially as claimed, AAPA and Tang are silent regarding “calculating error of data by comparing data to the burst-rate traffic profile” Garcia, in an analogous art disclosed “calculating error of data by comparing data to the burst-rate traffic profile.”(refer to 0089). Hence, providing functions disclosed by Garcia, would be desirable for a user to implement in order to provide more stability and reliable of the current Internet architecture. Therefore, at the time of the invention, it would have been obvious to one of ordinary skill in the art to modify the systems of AAPA and Tang by including the features presented in Garcia.

11. Referring to Claim 39, although AAPA and Tang disclosed the invention substantially as claimed, AAPA and Tang are silent regarding “calculating a cumulative bandwidth profile having a slope equal to allocated bandwidth.” Garcia, in an analogous art disclosed “calculating a cumulative bandwidth profile having a slope equal to allocated bandwidth.” (refer to Fig 18).

Hence, providing functions disclosed by Garcia, would be desirable for a user to implement in order to provide more stability and reliable of the current Internet architecture.

Therefore, at the time of the invention, it would have been obvious to one of ordinary skill in the art to modify the systems of AAPA and Tang by including the features presented in Garcia.

12. Referring to Claim 41, although AAPA and Tang disclosed the invention substantially as claimed, AAPA and Tang are silent regarding "calculating a new burst parameter if the error of data is higher than a predetermined limit "

Garcia, in an analogous art disclosed "calculating a new burst parameter if the error of data is higher than a predetermined limit " (refer to 0175).

Hence, providing functions disclosed by Garcia, would be desirable for a user to implement in order to provide more stability and reliable of the current Internet architecture.

Therefore, at the time of the invention, it would have been obvious to one of ordinary skill in the art to modify the systems of AAPA and Tang by including the features presented in Garcia.

13. Referring to Claims 9, 25, and 31, AAPA disclosed collecting traffic data at a queue of a route (multiple queues stores traffic data, refer to Page 8, Lines 9-10, Pages 9, Lines 3-5), said queue associated with the traffic aggregate over a time interval (AAPA admit that Tang algorithm disclosed its algorithm to calculate the real-time traffic profiling is well known in the art, refer to Page 13, Lines 1-3, and in order to do that, it does it by monitoring traffic for a time interval as packet pass through a queue, refer to Page 2, Lines 4-6), the traffic data comprising packet size and arrival time of each packet arriving at the queue during the time interval (it is

obvious to have packet that contains time stamp and indications that shows its packet size, refer to Page 7, where maximum burst size indicate the maximum packet size could the traffic be, and negotiation rate indicate the rates that the packets can be sent over the traffic, and rate is packet size divided by the time, therefore, when packet travels, it will requires to contains a time stamp as well as the packet size); Calculating a burst-rate traffic profile responsive to the traffic data collected at said queue over said time interval and the associated rate (Prior art indicates the methods by Tang, where it is incorporate by references in this rejection, that the Token bucket methods provide finding the burst-rate traffic profile  $r$  and  $b$ , refer to Page 12, Lines 10-20), wherein the associated rate is a specified bandwidth for the traffic aggregate (given value  $r$ , refer to Page 12, Lines 15) and calculating the burst-rate traffic profile comprise calculating a burst parameter based on the associated rate (refer to Page 12, Lines 10-20);

Although AAPA disclosed the invention substantially as claimed, AAPA is silent regarding "and calculating a periodic worst-case delay for the burst-rate traffic profile by dividing the burst parameter by a share of output link bandwidth allotted to said queue, wherein the share of the output link bandwidth is greater than or equal to the associated rate".

Tang, in an analogous art disclosed "calculating a periodic worst-case delay for the burst-rate traffic profile by dividing the burst parameter by a share of output link bandwidth allotted to said queue, wherein the share of the output link bandwidth is greater than or equal (examiner interprets the output link bandwidth is equal to the associated rate.) to the associated rate" (Pages 61, Fig 6, where Tang indicates the max delayed/slope of the graph, is calculated by divided burst rate by associated rate: x-axis/burst rate divided by y axis/associated rate).

Hence, providing functions disclosed by Tang, would be desirable for a user to implement in order to alleviates the need for users to explicitly characterize the traffic a priori in order to reserve network resource in an integrated services network.

Therefore, at the time of the invention, it would have been obvious to one of ordinary skill in the art to modify the system of AAPA by including the features presented in Tang, although AAPA and Tang disclosed the invention substantially as claimed, AAPA and Tang are silent regarding "adding up the calculated periodic worst-case delay associated with the routers along the path."

Garica disclosed "adding up the calculated periodic worst-case delay associated with the routers along the path." (refer to 0063, where the sum of propagation delay of the links and the path associated with the routers.).

Hence, providing functions disclosed by Garcia, would be desirable for a user to implement in order to provide more stability and reliable of the current Internet architecture.

Therefore, at the time of the invention, it would have been obvious to one of ordinary skill in the art to modify the system of AAPA and Tang by including the features presented in Garcia.

14. Referring to Claims 4 and 45, AAPA disclosed wherein the associated rate is a negotiated rate agreed to by a customer sending the traffic data (refer to pages 7, Lines 15-20).

15. Referring to Claims 19 and 22, although AAPA and Tang disclosed the invention substantially as claimed, AAPA and Tang are silent regarding "wherein the associated rate is a negotiated rate agreed to by a customer sending the traffic data (refer to pages 7, Lines 15-20)."

Art Unit: 2100

Garcia, in an analogous art disclosed “wherein the associated rate is a negotiated rate agreed to by a customer sending the traffic data (refer to pages 7, Lines 15-20).”

Hence, providing functions disclosed by Garcia, would be desirable for a user to implement in order to provide more stability and reliable of the current Internet architecture.

Therefore, at the time of the invention, it would have been obvious to one of ordinary skill in the art to modify the system of AAPA and Tang by including the features presented in Garcia.

Claims 38 and 47 are rejected under 35 U.S.C. 103(a) as being unpatentable over Applicant Admitted Prior Art (Specification Pages 2, Lines 4-23, Page 7, Lines 13-20, Pages 8, Lines 6-13, Lines 16-17, Pages 9, Lines 3-5, 10-11, 15-18, Pages 10, Lines 3-6, Pages 11, Lines 19-20, Pages 12, Lines 1-2, 10-20, Pages 13, Lines 1-3, Lines 9-11, Pages 14, Lines 19-21, Pages 16, Lines 1-2, Pages 17, Lines 1-3, Lines 18-22, Pages 19, Lines 18-20, Pages 20, Lines 9-12) hereinafter AAPA in view of Tang et al hereinafter Tang “Network Traffic Characterization Using Token Bucket Model” Pages 51-62 in further view Garcia-Luna-Aceves et al (US 2002/0097726) hereinafter Garcia and Varma et al hereinafter Varma (US 2002/0073224).

16. Referring to Claims 38 and 47, although AAPA, Tang and Garcia disclosed the invention substantially as claimed, AAPA, Tang and Garcia are silent regarding “wherein in the burst-rate traffic profile comprises a y-intercept corresponding to the calculated burst parameter and a slope corresponding to the associated rate.”

Art Unit: 2100

Varma, in an analogous art disclosed “wherein in the burst-rate traffic profile comprises a y-intercept corresponding to the calculated burst parameter and a slope corresponding to the associated rate.” (refer to 0013).

Hence, providing functions disclosed by Garcia, would be desirable for a user to implement in order to provide more stability and reliable of the current Internet architecture.

Therefore, at the time of the invention, it would have been obvious to one of ordinary skill in the art to modify the systems of AAPA, Tang and Garcia by including the features presented in Varma.

### ***Conclusion***

**Examiner's Notes:** Examiner has cited particular columns and line numbers in the references applied to the claims above for the convenience of the applicant. Although the specified citations are representative of the teachings of the art and are applied to specific limitations within the individual claim, other passages and figures may apply as well. It is respectfully requested from the applicant in preparing responses, to fully consider the references in entirety as potentially teaching all or part of the claimed invention, as well as the context of the passage as taught by the prior art or disclosed by the Examiner. In the case of amending the claimed invention, Applicant is respectfully requested to indicate the portion(s) of the specification which dictate(s) the structure relied on for proper interpretation and also to verify and ascertain the metes and bounds of the claimed invention.

A shortened statutory period for reply to this Office action is set to expire THREE MONTHS from the mailing date of this action.

Art Unit: 2100

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Karen C. Tang whose telephone number is (571)272-3116. The examiner can normally be reached on M-F 7 - 3.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Follansbee can be reached on (571)272-3964. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Karen Tang

/John Follansbee/

Supervisory Patent Examiner, Art Unit 2151